

ABSTRACT

A device is for measuring an angular movement in a vehicle steering system. A shaft, whose angular movement is to be measured, is rotationally mounted in a frame. Positioned on the shaft is an axially displaceable element, which is connected to the shaft via a geared connection that converts the angular movement of the shaft into a longitudinal movement. The geared connection may be a screw thread or a screw-like, sliding-block guide or a recirculating ball screw, etc. The axially displaceable element is axially guided with the aid of a longitudinal guide prestressed in the radial direction and, in particular, by a frame-side component of the longitudinal guide. A detection device made up of a transducer on the axially displaceable element and a sensor on the frame detects the longitudinal movement of the axially displaceable element.

In order to render the geared connection, together with the longitudinal guide, backlash-free, it is provided that the frame-side component rest against the axially displaceable element on first oblique surfaces that extend at an angle to each other and in the axial direction of the axially displaceable element, and that the axially displaceable element and the shaft mesh in a backlash-free manner via second oblique surfaces of the geared connection. The first oblique surfaces and the second oblique surfaces have the same inclination directions with respect to each other.